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| EXAMINER | |
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| NGUYEN, DAVID Q | |
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| 2617 | |

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Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/017,590 | LEE, SEOK SU | |
| | Examiner | Art Unit | |
| | David Q. Nguyen | 2617 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *20 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments, see Remarks, filed 06/20/06, with respect to claims 1-26 have been fully considered and are persuasive. The final rejection has been withdrawn.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1,13,15, and 23-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Shah (US 6,029,065).

Regarding claim 1, Shah discloses a method for downloading information in a wireless system (see abstract), comprising: communicating a request for a download operation from a base station controller to a base station (col.4, lines 1-31 and col. 7, line 45 to col. 8, line 25, mobile user wishes to activate or deactivate features, if the features become available within a network, the base station can download the information from the network); downloading the information to at least one mobile station through a paging channel (see abstract and col.4, lines 1-31 and col. 7, line 45 to col. 8, line 25), the at least one mobile station storing the information (see abstract and col.4, lines 1-31); and resetting the at least one mobile station using the stored information (see col. 8, line 59 to col. 9, line 27 and col. 7, line 45 to col. 8, line 25; updating

feature codes) and reporting a downloading result from the at least one mobile station to the base station (see col. 7, line 45 to col. 8, line 25, col. 8, lines 5-25).

Referring to claim 15, Shah discloses a method of communicating information (see abstract), comprising: communicating data messages from a common terminal to distributed terminals (see abstract, common terminal is base station; distributed terminals are mobile stations); storing the data messages in each of the distributed terminals (see abstract and col.4, lines 1-31 and col. 7, line 45 to col. 8, line 25); and resetting an operation of the distributed terminals based on the stored data messages (see col. 8, line 59 to col. 9, line 27 and col. 7, line 45 to col. 8, line 25; updating feature codes), wherein the common terminal communicates each of the data messages to all of the distributed terminals simultaneously through a paging channel (see abstract and col.4, lines 1-31 and col. 7, line 45 to col. 8, line 25).

Regarding to claim 23, Shah discloses a data communication method, comprising establishing a paging channel between a base station and a mobile station (see fig. 4), and downloading program data in wireless system from base station to mobile station using the paging channel (see abstract; and col.4, lines 1-31 and col. 7, line 45 to col. 8, line 25 and col. 7, lines 45-55); controlling the mobile station by the downloaded program data (see abstract; and col.4, lines 1-31 and col. 7, line 45 to col. 8, line 25 and col. 7, line 45 to col. 8, line 25).

Regarding claim 24, Shah also discloses wherein the program data transmitted through the paging channel are received in at least two mobile stations (see abstract).

Regarding claim 26, Shah discloses a subscriber unit, comprising: a first means for receiving program data through a paging channel (see abstract; and col.4, lines 1-31 and col. 7, line 45 to col. 8, line 25 and col. 7, lines 45-55); and a second means for changing a program of

the subscriber unit based on the received program data (see abstract; and col.4, lines 1-31 and col. 7, line 45 to col. 8, line 25 and col. 7, lines 45-55).

Regarding claim 13, Shah further discloses wherein the information transmitted from the base station to the at least one mobile station is transmitted through the paging channel according to a message queuing method (see abstract; and col.4, lines 1-31 and col. 7, line 45 to col. 8, line 25 and col. 7, lines 45-55).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Criss et al. (US 6308061) in view of Shah (US 6,029,065).

Regarding claim 25, Criss et al disclose a base station subsystem, comprising: a first means for generating a broadcasting message (col 11, lines 46-52, transmitting data); a second means for generating a reception message (col 11, lines 46-52, receiving data); a third means for generating a downloading message (col 2, lines 51-54, software upgrades); a message queue that queues the broadcasting message, the reception message, and the downloading message received from the first means, the second means, and the third means, respectively (col 13, lines 55-64,

sequential transmission, transfer, download; and a transmission means for transmitting the queued broadcasting, reception, and downloading messages through a message channel of a wireless system (col 21, lines 23-34, the file field includes the contents of the file, file downloaded to terminal; file transmitted as a message). Criss et al do not mention a message channel is a paging channel. However, Shah mentions downloading messages through a paging channel of a wireless system (see abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Shah to Criss et al. in order to avoid to reduce transferring data rate in traffic channels.

4. Claims 2-7,11-12,14,20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shah (US 6,029,065) in view of Criss et al. (US 6308061)

Referring to claim 2, Shah discloses downloading messages through a paging channel of a wireless system (see abstract). Shah does not disclose communicating a downloading start message to a plurality of mobile stations through the paging channel at the same time; and communicating a downloading response signal of the plurality of mobile stations to the base station controller. However, Criss et al. disclose communicating a downloading start message to a plurality of mobile stations through a message channel at the same time (col. 21, lines 23-34, the file field includes the contents of the file, file downloaded to terminal; file transmitted as a message, col 11, lines 46-52, one or more mobile terminals); communicating a downloading response signal of the plurality of mobile stations to the base station controller (col 13, lines 55-64, after an actual file is downloaded and stored - the terminal generates another File Request Packet, thus indicating through the base station that the file has been downloaded; col 11, lines 46-52, one or more mobile terminals). Therefore, it would have been obvious to one of ordinary

skill in the art at the time the invention was made to provide the above teaching of Shah to Criss et al. in order to avoid to reduce transferring data rate in traffic channels.

Regarding claim 3, the method of Shah in view of Criss et al also disclose wherein the downloading start message includes information of a version of software to be downloaded to the plurality of mobile stations, a size of a file, and a hardware type (see Criss et al; col 21, lines 23-34, the file field includes the contents of the file, file downloaded to terminal; col 20, lines 55-60, version identifier, required memory, file type; col 2, lines 5-10, software upgrade for obsolete hardware; col 9, lines 60-65, each entry included hardware address of mobile terminal).

Regarding claim 4, Shah does not disclose wherein a plurality of mobile stations respectively receiving the information according to a software version and a hardware type contained in a downloading start message. However, Criss discloses a plurality of mobile stations respectively receiving the information according to a software version and a hardware type contained in a downloading start message (col 2, lines 51-54, software upgrades; col 11, lines 46-52, one or more mobile terminals; col 19, lines 60-65, hardware address field). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Shah to Criss et al. in order to avoid to update new application to the mobile stations.

Regarding claim 5, Shah disclose the method of claim 1, further comprising: communicating data messages downloaded from the base station controller to the at least one mobile station, via the base station (see abstract; and col.4, lines 1-31 and col. 7, line 45 to col. 8, line 25 and col. 7, lines 45-55); sequentially storing within the at least one mobile station, the downloaded data messages from the base station (see abstract; and col.4, lines 1-31 and col. 7,

line 45 to col. 8, line 25 and col. 7, lines 45-55). Shah does not disclose communicating a downloading end message from the base station to the at least one mobile station, when the communication of the data messages is complete; determining with the at least one mobile station, whether the downloaded data messages are received with a normal state; and resetting the at least one mobile station, if the respective downloaded data messages are received with the normal state. However, Criss discloses communicating a downloading end message from the base station to the at least one mobile station, when the communication of the data messages is complete (col 15, lines 58-65, File Packet is interpreted as download end message as process ends on its reception by mobile station); determining with the at least one mobile station, whether the downloaded data messages are received with a normal state (col 15, lines 505-55, if file packet containing requested files is received within predetermined response period); and resetting the at least one mobile station, if the respective downloaded data messages are received with the normal state (col 14, lines 55-60, reset). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Criss to Shah in order to assure that all the mobile stations are updated new applications or features when they become available.

Regarding claims 6-7, the method of Shah in view of Criss et al also disclose wherein the at least one mobile station stores the downloaded data messages in a different memory position then that used to store an existing software (see Criss, col 14, lines 45-50, fail safe mode) and the base station resets the at least one mobile station using the stored data messages when the downloaded data messages are received with the normal state (see Criss, col 14, lines 55-60, reset); wherein the base station resets the at least one mobile station using the downloaded data

messages when the downloaded data messages are received with the normal state (col 14, lines 55-60, reset).

Referring to claims 11-12, Shah discloses communicating a location register message from the at least one mobile station to the base station after resetting the at least one mobile station (see col. 8, line 59 to col. 9, line 27 and col. 7, line 45 to col. 8, line 25). Shah does not disclose determining the downloading result during a predetermined time based on the location register message from the at least one mobile station; and reporting the downloading result to the base station controller; wherein the location register message includes a version of a current software and a hardware type. However, Criss et al discloses determining the downloading result during a predetermined time based on the location register message from the at least one mobile station; and reporting the downloading result to the base station controller (col 13, lines 55-64, after an actual file is downloaded and stored - the terminal generates another File Request Packet, thus indicating through the base station that the file has been downloaded); wherein the location register message includes a version of a current software and a hardware type (col 2, lines 51-54, software upgrades; col 11, lines 46-52, one or more mobile terminals; col 19, lines 60-65, hardware address field). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Criss to Shah in order to assure that all the mobile stations are updated new applications or features when mobile station is roaming to a visited network.

Regarding claim 14, the method of Shah in view of Criss et al also further discloses wherein the information transmitted from the base station to the at least one mobile station is

transmitted through the paging channel according to a message queuing method (see abstract; and col.4, lines 1-31 and col. 7, line 45 to col. 8, line 25 and col. 7, lines 45-55 of Shah).

Regarding claim 20, Shah does not disclose wherein the common terminal collects the identified data messages from the distributed terminals for a predetermined period of time However, Criss et al. discloses wherein the common terminal collects the identified data messages from the distributed terminals for a predetermined period of time (col 15, lines 15-20, processor determines if File Name Packet has been received from the host computer in response to the Version Response Packet within a predetermined response period). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Criss to Shah in order to update new application to the mobile stations and assure that all the mobile stations are updated new applications or features when mobile station is roaming to a visited network.

Regarding claim 21, Shah does not disclose communicating a request from a system controller to the common terminal to download a file to the distributed terminals; communicating a download start message from the common terminal to the distributed terminals; and communicating a download response message from the common terminal to the system controller indicating a status of a download operation, wherein the download start message includes an identification of a file version, a file size, and a hardware type. However, Criss et al discloses communicating a request from a system controller to the common terminal to download a file to the distributed terminals (col 7, lines 22-44, mobile terminal communicates with host computer, interpreted as being the system controller, via base station, interpreted as being the common terminal; host computer transmits software upload request to mobile terminal

via base station); communicating a download start message from the common terminal to the distributed terminals (col 21, lines 23-34, the file field includes the contents of the file, file downloaded to terminal; file transmitted as a message, hence paging channel; col 1 1, lines 46-52, one or more mobile terminals); and communicating a download response message from the common terminal to the system controller indicating a status of a download operation (col 13, lines 55-64, after an actual file is downloaded and stored - the terminal generates another File Request Packet, thus indicating through the base station that the file has been downloaded), wherein the download start message includes an identification of a file version, a file size, and a hardware type (col 20, lines 55-60, version identifier, required memory, file type; col 2, lines 5-10, software upgrade for obsolete hardware; col 9, lines 60-65, each entry included hardware address of mobile terminal). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Criss to Shah in order to update new application to the mobile stations and assure that all the mobile stations are updated new applications or features when mobile station is roaming to a visited network.

Regarding claim 22, Shah does not disclose the data messages are queued by the common terminal with broadcast messages and reception messages for communication to the distributed terminals; and the queued messages are communicated in their respective order of arrival to a queue of the common terminal. However, Criss et al. discloses the data messages are queued by the common terminal with broadcast messages and reception messages for communication to the distributed terminals; and the queued messages are communicated in their respective order of arrival to a queue of the common terminal (see col 13, lines 55-64,sequentially stepping through each file, transmitting request, downloading; col 1 1, lines 46-52,one or more mobile terminals).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Criss to Shah in order to update new application to the mobile stations and assure that all the mobile stations are updated new applications or features when mobile station is roaming to a visited network.

5. Claim 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shah (US 6,029,065) in view of Criss et al. (US 6308061) and further in view of Onoe et al. (US 5210751).

Regarding to claim 8, Criss et al disclose wherein the data messages are stored sequentially (col 13, lines 55-60, sequentially stepping through each file name listed in the package definition file, request, download, store). The method of Shah in view of Criss et al does not disclose that the data messages are stored sequentially with associated sequential numbers, except a data message received with an error is stored without the associated sequential number. The examiner maintains that the concept that the data messages are stored sequentially with associated sequential numbers, except a data message received with an error is stored without the associated sequential number was well kmow in the art as taught by Onoe et al.

In a similar field of endeavor, Onoe et al show storing the correctly received data units with a related message order number and sending incorrectly received data unit information to the memory circuit (col 12, lines 24-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Shah in view of Criss et al to show that the data messages are stored sequentially with associated sequential numbers, except a data message received with an error is stored without the associated sequential number, as taught by Onoe et al, the motivation being to provide a signal transmission system

which can reliably transmit long messages even if the transmission paths used have relatively low reliability (Onoe et al, col 2, lines 5-10).

Regarding claim 9, the method of Shah in view of Criss et al does not disclose that the data message received with the error is identified by the corresponding one of the associated sequential numbers as being received with an abnormal state and is downloaded again. The examiner maintains that the concept that the data message received with the error is identified by the corresponding one of the associated sequential numbers as being received with an abnormal state and is downloaded again was well known in the art as taught by Onoe et al.

In a similar field of endeavor; Onoe et al show sending incorrectly received data unit information to the memory circuit to request retransmission (col 12, lines 24-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Shah in view of Criss et al to show that the data message received with the error is identified by the corresponding one of the associated sequential numbers as being received with an abnormal state and is downloaded again, as taught by Criss et al, the motivation being to provide a signal transmission system which can reliably transmit long messages even if the transmission paths used have relatively low reliability (Onoe et al, col 2, lines 5-10).

Regarding claim 10, the method of Shah in view of Criss et al discloses where the downloaded data messages are all transmitted to the at least one mobile station (see Criss et al, col 21, lines 23-34, file downloaded to terminal; file transmitted as a message) and the base station transmits the downloading end message (col 15, lines 58-65, File Packet is interpreted as download end message as process ends on its reception by mobile station). Criss et al do not disclose that the downloading end message includes a final sequential number. The examiner

maintains that the concept that the downloading end message includes a final sequential number was well known in the art as taught by Onoe et al. In a similar field of endeavor, Onoe et al show storing the correctly received data units with a related message order number (col 12, lines 24-35). And it is inherent that the last message received, i.e. the downloading end message will correlate with the final sequential number. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Criss et al to show that the downloaded data messages are all transmitted to the at least one mobile station and the base station transmits the downloading end message, including a final sequential number, to the at least one mobile station, as taught by the method of Shah in view of Criss et al, the motivation being to provide a signal transmission system which can reliably transmit long messages even if the transmission paths used have relatively low reliability (Onoe et al, col 2, lines 5-10).

6. Claim 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shah (US 6,029,065) in view of Onoe et al. (US 5210751).

Regarding claim 16, Shah does not disclose that the method further comprises: identifying each of the data messages by a sequential number contained within the respective data messages; and storing the corresponding sequential number with each of the stored data messages. The examiner maintains the concept of identifying each of the data messages by a sequential number contained within the respective data messages; and storing the corresponding sequential number with each of the stored data messages was well known in the art as taught by Onoe et al. In a similar field of endeavor, Onoe et al show storing the correctly received data units with a related message order number (col 12, lines 24-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shah to show

identifying each of the data messages by a sequential number contained within the respective data messages; and storing the corresponding sequential number with each of the stored data messages, as taught by Onoe et al, the motivation being to provide a signal transmission system which can reliably transmit long messages even if the transmission paths used have relatively low reliability (Onoe et al, col 2, lines 5-10).

Regarding claim 17, Shah does not disclose identifying each of the data messages by a sequential number contained within the within each of the respective distributed terminals, the respective data message; storing, corresponding sequential number with each of the stored data messages that is received without an error; and identifying, with each of the respective distributed terminals, each of the data messages received with an error based on the stored sequential numbers, wherein each of the sequential numbers omitted from storage identifies a corresponding one of the data messages received by the respective distributed terminal with an error. The examiner maintains that the concept of identifying each of the data messages by a sequential number contained within the respective data message; storing, within each of the respective distributed terminals, the corresponding sequential number with each of the stored data messages that is received without an error; and identifying, with each of the respective distributed terminals, each of the data messages received with an error based on the stored sequential numbers, wherein each of the sequential numbers omitted from storage identifies a corresponding one of the data messages received by the respective distributed terminal with an error was well known in the art as taught by Onoe et al.

In a similar field of endeavor, Onoe et al show storing the correctly received data units with a related message order number and sending incorrectly received data tmit information to the memory circuit (col 12, lines 24-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shah to show identifying each of the data messages by a sequential number contained within the respective data message; storing, within each of the respective distributed terminals, the corresponding sequential number with each of the stored data messages that is received without an error; and identifying, with each of the respective distributed terminals, each of the data messages received with an error based on the stored sequential numbers, wherein each of the sequential numbers omitted from storage identifies a corresponding one of the data messages received by the respective distributed terminal with an error, as taught by Onoe et al, the motivation being to provide a signal transmission system which can reliably transmit long messages even if the transmission paths used have relatively low reliability (Onoe et al, col 2, lines 5-10).

Regarding claim 18, Shah does not discloses communicating, with each of the distributed terminals, each of the identified data messages received with an error to the common terminal; and communicating each of the identified data messages received with an error from each of the respective distributed terminals to a system controller. The examiner maintains that the concept of communicating, with each of the distributed terminals, each of the identified data messages received with an error to the common terminal; and communicating each of the identified data messages received with an error from each of the respective distributed terminals to a system controller was well known in the art as taught by Onoe et al. In a similar field of endeavor, Onoe

et al show storing the correctly received data units with a related message order number and sending incorrectly received data unit information to the memory circuit for re-transmission (col 12, lines 24-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shah to show communicating, with each of the distributed terminals, each of the identified data messages received with an error to the common terminal; and communicating each of the identified data messages received with an error from each of the respective distributed terminals to a system controller, as taught by Onoe et al, the motivation being to provide a signal transmission system which can reliably transmit long messages even if the transmission paths used have relatively low reliability (Onoe et al, col 2, lines 5-10).

Regarding claim 19, Shah does not disclose communicating the identified data messages, received by the respective distributed terminals with an error, to the respective distributed terminals again.

In a similar field of endeavor, Onoe et al show storing the correctly received data units with a related message order number and sending incorrectly received data unit information to the memory circuit for re-transmission (col 12, lines 24-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shah to show communicating the identified data messages, received by the respective distributed terminals with an error, to the respective distributed terminals again, as taught by Onoe et al, the motivation being to provide a signal transmission system which can reliably transmit long messages even if the transmission paths used have relatively low reliability (Onoe et al, col 2, lines 5-1).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Q. Nguyen whose telephone number is 571-272-7844. The examiner can normally be reached on 8:30AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOSEPH H. FEILD can be reached on (571)272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN

David Q Nguyen
Examiner
Art Unit 2617

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER